THE INDIANA

FARMER & GARDENER.

Vol. I. **INDIANAPOLIS, FEBRUARY 1, 1845.** **No. 1.**

PUBLISHED BY

S. V. B. NOEL & CO.

TERMS.—The FARMER AND GARDENER is published *semi-monthly*, each number containing 16 royal octavo pages, at *One Dollar* per annum per copy; *Seventy-five Cents* per copy for Four and less than Ten copies; and *Fifty Cents* per copy for Ten or more copies to the same Post Office. All subscriptions IN ADVANCE.

Notice.

☞ We send the present number to many who, we hope, may be pleased to return their names as regular subscribers. By observing the terms at the head of this column, it will be seen that by a small exertion—a company of ten uniting—it may be had for the extremely low price of fifty cents a year. Such as do *not* wish the paper continued, will please return the number.—Otherwise, their names and subscription.

Exchange Papers.

☞ We send our Paper to many established journals, soliciting an exchange; an even one if they please; but otherwise we will, upon notification, pay the difference willingly, for the benefit of the labors of our able contemporaries.

The Western Cultivator and our Paper.

There is already a line of agricultural papers extending from Maine to Missouri, and from Missouri to Florida. Every year adds to the number. Every year gives them a better support. Papers create readers—the *supply* creates a *demand*. New papers are, like new settlers in a pioneer village, not rivals, but welcome helpers—the more the better, within certain limits. The time is coming when every good farmer would as soon be without a plow, as without an able Agricultural paper. There are nearly a million people in Indiana, and only one Agricultural paper. The Cultivator has been established by great enterprise and industry. No farmer who has read that paper for a year will doubt the utility of Agricultural Journals. But the field is large, and friend Hatch, busy as he is, cannot take care of the whole. So here is the INDIANA FARMER AND GARDENER. Fellow-citizens, take your choice—but let us whisper, that it would be better for you (and for us) if you will take both! At any rate, the field stretches out before us—our scythes are ground and hung—let us touch the edge once more, friend Hatch, and now for it—coats off, a broad swath, a bold and easy swing, a clean and close cut, and if you can *cut our corner*, we wont be angry, but labor as busily second best, as if we were the first out.

Neshanoc Potatoe.

This potatoe (pronounced about here *Me*shanoc,) was raised from the seed about the year 1800, by John Gilkey, Mercer Co., Pa. He called it *Neshanoc*, from a creek near to which he lived. It was called by some, *Mercer*, from the county in which it was raised. It is extensively cultivated, and deserves to be. Mr. Gilkey was an Irishman —of course a judge of a good potatoe.

ORIGINAL CORRESPONDENCE.

For the Indiana Farmer and Gardener.

Farming in Wayne and Union Counties.

RICHMOND, Dec. 31, 1844.

Dear Sir—Since I returned from Indianapolis, I have bestowed on the subject of your inquiries every attention that business would permit; and I am very sorry to say, that I can give you but little more information, than when I was at your house. My conversations have been with very many farmers of this and Union county; but all of them, with some exceptions as to one or two particulars, betray as much ignorance as I am compelled to acknowledge on my own behalf. * * * * I most sincerely hope, that favorable circumstances may put it more in my power to co-operate with you in so laudable and praiseworthy an object, as that of improving the Agricultural interest of our country.

To the counties of Wayne and Union my statements will be confined.

First. As to the qualities of the soil. The average quality of the soil throughout the counties, is what is usually called second rate; and consists of argillaceous, calcarious, and silicious earth, the two former, in my opinion, greatly predominating.—Most of our uplands are of the argillaceous kind. The calcarious and silicious are most abundant in the vicinity of our water courses. They all contain (where they have not been exhausted by improper tillage,) a proper mixture of vegetable substances, resulting from a constant decomposition. In the vicinity of some of our water courses, oxide of iron is found in combination with some of those earths. The soil is good; and it wants nothing but an enlightened system of agriculture, to justify the expectations formed by the first settlers of these counties. That the cultivation has been of a most objectionable kind, will be apparent from my statement of its products; and to this my attention is *secondly* directed.

My neighbors have varied so much in opinion as to the quantity of the productions of our soil, that I state any opinions with great reluctance; but, however erroneous they may be, I trust they may not mislead you to any great extent. Taking five years with the present inclusive, I think the average quantity of wheat per acre is twelve bushels, and not more—of corn, thirty bushels. The estimation by our best farmers of our corn, has been from 25 to 40 bushels; but I am very confident that the average during the last 5 years cannot exceed thirty-five bushels, and I feel some confidence from my own personal observation, in stating the quantity at 30 bushels. Oats will probably average from thirty-five to forty bushels, perhaps 40. Hay from 1¼ to 1½ tons to the acre. So little attention has been paid to our buckwheat and some other crops, that I can form no opinion whatever concerning them.

On your third inquiry, "What is the number of apple-trees on each 160 acres of land?" I answer that the average number is not less than 50; and some men of observation say 100. Perhaps the last may be correct, although I am disposed to think the estimate a high one Many of the tracts of land consisting of 160 acres, have been divided among smaller proprietors; and in the neighborhood of towns, the division has been still more minute. Fruits of an excellent quality, and comprehending several varieties, are found in all, most all, neighborhoods in the respective counties.

Within the last five years the quality of our sheep has been improved. and their number increased at least one fourth. The principal crossings have been with the Merino breed. Occasionally we meet with the Bakewell, Saxony, and the South Downs; and the crossing of these with our common stock, has, as far as I am informed, been productive of good consequences. Upon the whole, I think more attention has been paid to the sheep-raising business, and to the cultivation of good fruit, than has been bestowed on any other branch of agriculture of which I have spoken.

Several varieties of the hog are found in these counties, among which are the Shaker, the China, the Berkshire, the Russia, the Irish Grazier, &c. &c. A mixture of the Berkshire and the Russia is, at this time, regarded as the best, and next the Berkshire and the Grazier. There has been a diminution in the number of hogs within the last two years.

Our stock of cattle is, upon the whole, tolerably good. The crossings with our common breed has been with the short-horned Durham more generally than with any other. It is probable, however, that there is no material difference between the stock in these and your own county.

At some convenient time, I will state to you some of the most obvious defects in the cultivation of our soil. This I can do with more confidence, as my attention is often directed to the subject.

I am, sir, yours, very respectfully,

JAMES PERRY.

"A great lie," says the poet Crabbe, "is like a fish on dry land: it may fret and fling, and make a frightful bother, but it cannot hurt you. You have only to keep still, and it will die of itself."

Tulips.

It may be remembered that, some fifty years ago, the mania for tulips was exceedingly great all over Europe, particularly in France, and still more in Holland. A root, the *Semper Augustus*, was sold for 12,000 francs; a *Yellow Crown*, for 1,123 francs, and a chariot drawn by two handsome bays; a very middling tulip, the *Viceroy*, was sold for the following objects:—four bbls. of flour, eight of rye, four cows, eight hogs, twelve sheep, two casks of wine, four of beer, two of butter, a thousand pounds weight of cheese, a bed with all its appurtenances, a bundle of wearing apparel, and a silver cup. At this period there might be seen in the public prints, under the head of foreign intelligence, such a paragraph as this—"Amsterdam—Admiral Liefhans has flowered perfectly at M. Berghem's."

But we must not forget the story. One day it was discovered that tulips with a yellow ground were no longer beautiful, and that the admiration lavished on them for some time, had been bestowed on them most wrongfully; that the only tulips worth cultivating, were those with a white ground: that every yellow tulip ought to be rejected from every flower bed that had any respect for itself, and that their seed ought to be cast to the winds. The amateurs divided themselves into parties: letters, pamphlets, squibs, songs, nay, large volumes, were written on the subject. The amateurs of yellow tulips, were treated as pig-headed creatures; beings enveloped in the swathing-clothes of prejudice; illiberal, retrograding, awkward persons—enemies of enlightenment—nothing better than Jesuits.

On the other hand, the partizans of white tulips were branded as innovators, revolutionists, democrats, disturbers of the public peace, *sans-culottes*, mere youngsters.

Friends quarrelled, spouses were opposed, families were disunited. One evening that M. Muller was playing at dominoes with one of his earliest friends, an old school-fellow, and a renowned horticulturist, like himself, the conversation turned on tulips—tulips yellow, and tulips white. M. Muller stood up for the yellow; his friend was a partizan of the white. Both gentlemen were men of good taste and knowledge of life, and always used the greatest moderation in their language, and avoided with great care coming to a discussion.

"Certainly," said M. Muller, "nature has done nothing in vain: there is not a single gem in her jewel-case which does not charm the sight: it is melancholy to see persons act on the principle of exclusion. I freely admit that there are certain tulips with white ground, that I would willingly admit into my collection, if my garden was more extensive."

"I also," remarked his friend, desirous of not remaining behind in politeness and concession, "I am ready to allow that the *Erymanthus*, yellow though it be, is a flower altogether presentable."

"I should not despise the *Unique de Delphos*, notwithstanding its white ground," remarked M. Muller.

"It is not very white," retorted his friend. "Not more than three or four days elapse before it frees itself from a yellowish tint which it has on opening its petals: in consequence we think but little of it."

"It is, however, the one of your collection that I should prefer."

The two friends were on excellent terms when Madame Muller quitted the room to get tea ready. It is difficult to tell exactly by what imperceptible transitions they departed from that condition to bitterness, to abuse, to insult; but so it is, that when Madame Muller returned to the room five minutes after, she found them under the table, holding each other by the hair, and cuffing away with all their might. M. Muller had thrown the dominoes in his friend's face, and thus the quarrel began. It may be guessed what sensations of shame seized on the two antagonists, when the first effervescence had subsided. The next morning M. Muller sat down and wrote to his friend:

"I am a wild beast, and an ill-bred man; receive my apology. Our old friendship will wipe out this moment of madness. My wife requests the pleasure of your company to dinner to-day. We shall have some of those Brussels sprouts you are so fond of.

Your friend, MULLER.

"P. S. You will oblige me, my dear friend, to put aside for me a few of your beautiful white tulips, for which I have reserved for next season, one of my best squares."

He immediately received the following reply:

"I shall be with you at a quarter before five. You will permit me, my excellent friend, to introduce to you a horticulturist, who is desirous of admiring your magnificent tulips."

Through a refinement of politeness, that both understood, M. Muller made a point of admiring the whitest of the white tulips, and his friend was not less polite, with respect to the yellow. However, this movement of generosity on the part of M. Muller, could not always maintain itself at the same elevation. The ground in which the white tulips were placed was neither dug, nor manured, nor sifted, like that destined for those of yellow grounds. The second year, M.

Muller took it into his head that they encumbered the ground; the third year they were placed under a gutter; and M. Muller, after having exhibited his yellow tulips in all their brilliancy, used to say to his visitors, "there are some of the finest of the white tulips; they have been given me by my friend Walter, and I prize them infinitely," and when, ten minutes after, he added, "I cannot comprehend that any one can cultivate white tulips," every one was naturally of his opinion.—*Gardener and Practical Florist.*

The Fire-Blight.

The following valuable communication from Levi Bartlett, Esq., will be read with much interest. His experience corresponds with Mr. Beecher's theory on the cause of blight in fruit-trees: it agrees, also, with our own observation and experience for the last twenty-five years. There is, however, one species of blight which we believe is confined mostly to the pear tree, that we think is very different from that to which Mr. Beecher refers: this operates differently from that which is caused by the sudden check of the sap by severe cold, when the tree is in a growing state, or the wood immature. This disease attacks one limb after another of the pear tree, from time to time, and in different seasons, when in full leaf the branch suddenly withering and dying, until the whole tree is destroyed.—We have trees in our garden that have been affected in this way, and we think the cause cannot be that described by Mr. Beecher.—*N. E. Farmer.*

Mr. Editor—I was much pleased in the perusal of the Rev. H. W. Beecher's paper on the destruction of fruit trees the past season by blight. You observe that some of your horticultural friends think favorably of the author's theory. Of the truth of it, I have been fully satisfied for twelve years at least, and think when you were here the past autumn, I gave you my views upon the subject, corresponding with Mr. Beecher's.

The first general destruction of the fruit trees in New England, that I have any knowledge of, was in the year 1810: the previous autumn (1809) was remarkably warm and moist: there was no very cold weather till about the 10th of January, 1810, when there was one of the most sudden and remarkable changes of weather, from quite moderate to the most severe cold, perhaps upon record. The day alluded to has ever since been known as the "cold Friday." The effect of this intense cold was to freeze the sap between the bark and wood, and in many instances caused the bodies of the trees to split (from the expansion of the frozen sap,) from the ground to the limbs. The destruction of the peach and plum trees throughout this section of the country, was general and total. The next spring, most of the apple-trees that suffered, leaved and blossomed as usual, but the small apples and leaves mostly shed off during the summer: many trees, however, blossomed a second time, and to some superstitious persons it caused much alarm: they thought it the "forerunner of a bad sign"—and so it proved: for a large portion of the trees in many orchards, never put out any leaves after that season.

My father had an orchard, the trees of 30 or 35 years' growth, upon a good, deep, loamy, and rather moist soil: every tree—perhaps 35 or 40—perished, but he had others on a poorer and more gravelly soil, with a northern exposure, that suffered but little. This was generally the case through this section of the country.

The next great *blight*, or destruction of fruit trees was in the winter of 1831–2. The first notice of the fact was made public as early as the 9th of March, 1832, by the late Mr. Lowell, of Roxbury. Mr. Lowell's communication appeared in the N. E. Farmer of March 14. Mr. L., after relating the extent of injury to his trees, &c., says: "I have no doubt that this is not to be attributed to the cold of the late winter, but I should look to the extraordinary and unnatural heat of the last summer, which enabled gentlemen to ripen the Black Hamburg grape, and even the Muscat, on open trellises." This fact proves that the autumn was also warm, and protracted to a later period than usual.

"The sap continued up and not inspissated till the 30th of November. The severe, unusually premature severity of December, burst the vessels of the plants, filled as they were with a watery fluid. Such is my conjecture—but what are conjectures worth!" It will be perceived that Mr. Lowell's conjectures are strongly corroborative of Mr. Beecher's theory.

Three or four years previous to this, I had procured a bundle of various kinds of fruit trees from the Messrs. Princes' Nursery, Flushing, L. I. Every tree suffered by the winter. Soon after Mr. Lowell's letter appeared, I examined my trees, and found the disordered wood and bark that is sure to follow. By cutting through the bark upon the body of the tree, I could ascertain how far the tree had suffered. Some of my trees were green and healthy for two or three feet above the surface of the ground; others were killed to within six inches of the surface of the ground. Consequently, some of my plum trees were not killed down to where the bud had been inserted. These were sawed off

in the healthy part of the tree, and in the spring several sprouts started out of the stock: by training one of these upon each stock, they came to bearing. This was the case with a Washington plum, and an Italian Damask—but some others that had been budded higher upon the stock, were killed below the budded part: but these grew, and one Bleeker's Gage, that bore some fruit the previous year, was killed nearly to the surface of the ground: it was sawed off, and made a vigorous growth: it has borne miserably poor plums for several years: it is now nearly 20 feet high, and in its growth much resembles the Lombardy poplar.

All my cherry trees were budded some two or three feet from the ground, and were all killed below the bud. Some others were left without being sawed off: these all died, root and branch.

Such *peculiar* seasons as 1810 and 1831, in New England, and 1843, in the several States named by Mr. Beecher, may occasionally occur: when they do, the safest way will be to saw off all small trees below where they have turned dark colored beneath the bark, for if left with the top on, the roots being uninjured, the sap will rise into the tree as freely as though the top was uninjured; but the rupturing and disarrangement of the sap vessels in the bark, and between the bark and wood, prevents that elaboration of the sap that takes place in the healthy tree. Repletion, fermentation and acidity ensue, the whole tree becomes, if the freezing has been very severe, diseased to the very extremities of the roots, and the death of the tree is sure to follow. But if the body of the tree is sawed off in a healthy part, near the surface of the ground, before there is much circulation of the sap upward, there will be healthy sprouts from the stump, which may soon restore a nursery to its former value; and to guard against such a contingency, or peculiar season, I think it would be well for nurserymen to bud their fruit trees while small, as near the surface as possible. It might in such seasons as above alluded to, save the trouble and expense of rebudding.

Yours, truly, L. B.

Warner, N. H., Jan. 1845.

[For some remarks see editorial.]

"Snow is the Poor Man's Manure."

This is an old saying, and the following extract from one of Professor Johnston's lectures, shows that it is not destitute of truth:

"Snow has been supposed to be beneficial to winter wheat and other crops. That a heavy fall of snow will protect the soil and crop from the destructive effects of any severe cold which may follow, there can be no doubt. It defends the young shoots, also, from those alterations of temperature to which the periodical return of the sun's rays continually expose them; and when a thaw arrives, by slowly melting, it allows the tender herbage gradually to accustom itself to a milder atmosphere. But some believe that wheat actually *thrives* under snow. On this point I cannot speak from personal knowledge, but I will here mention two facts concerning snow, which may possibly be connected with its supposed nourishing quality.

Snow generally contains a certain quantity of ammonia, or of animal matter, which gives off ammonia during its decay. This quantity is variable, and occasionally so small as to be very difficult of detection.—Liebig found it in the snow of the neighborhood of Giessen, and I have this winter detected traces of it in the snow which fell in Durham during two separate storms. This ammonia is present in the greatest quantity in the first portions that fall and lie nearest the plant. Hence, if the plant can grow beneath the snow, this ammonia may affect its growth: or when the first thaw comes, it may descend to the root and may there be imbibed. Rain-water also contains ammonia; but when rain falls in a large quantity, it runs off the land, and may do less good than the snow which lies and melts gradually.

Another singular property of snow is the power it possesses of absorbing oxygen and nitrogen from the atmosphere, in proportions very different from those in which they exist in the air. The atmosphere contains 21 per cent. of oxygen by volume, but the air which is present in the pores of snow, has been found by various observers to contain a much smaller quantity. Boussingault obtained from air disengaged by melting snow, 17 per cent. of oxygen only, and De Saussure found still less. Whether the air retained among the pores of the snow which in severe winters cover our fields, be equally deficient in oxygen with that examined by Boussingault, and whether, if it be, the abundance of nitrogen can at all affect vegetation, are matters that still remain undetermined."

Buckwheat is a corruption rather than a translation of the old Saxon word *Buckwaizen*, the first syllable signifying beech, the tree of that name, whose nut the kernel of the grain so much resembles in shape. The grain, therefore, might be properly called beech-wheat.

It was stated by Dr. Jewett, in his address at a Temperance Olio, recently, that there are, at the present time, one hundred and twenty towns in Massachusetts destitute of a *grog-shop*.

Statistics.

Public Lands.—It appears by the report of T. H. Blake, Esq., U. S. Public Land Commissioner, as made to Secretary Bibb, that the sales of the public lands are still on the increase, and that, for the last year, 1,747,158 acres of land have been sold, which is an excess over the sales of the previous year of 141,894 acres, and of the preceding year, of 616,841.

Statistics of Poultry.—The annual consumption of poultry and small game in the city of Paris usually amounts to 22,000,000 lbs.

"The quantity of eggs used annually in France exceeds," says one of the late journals, "7,250,000,000, of which enormous number Paris uses about 120,000,000."

"The importation of eggs from Ireland in 1837 to Liverpool and Bristol alone, amounted in value to £250,000. The importation from France the same year was probably greater."

"It appears, from the custom house returns of the year 1838, that eggs were imported into England (although loaded with heavy duties,) from the continent to the value of more than a million of dollars."

"It appears," says McCullogh, "from official statements that the eggs imported from France (into England) amount to about 60,000,000 a year; and supposing them to cost, on an average, 4d. per dozen, it follows, that the people of the metropolis of Brighton (for it is to that place they are most all imported,) pay £23,000 a year for eggs; and suppose the freight, importer's and retailer's profit, duty, &c., raise their price to the consumer to 10d. per dozen, their total cost would be £213,000.

The number of eggs imported into England from various parts of the continent, in 1839, was 83,745,723, and the gross amount of duties received for the same was £29,111.

It has been ascertained that half a million of eggs are consumed every month in the city of New York. One woman in Fulton market sold 175,000 eggs in ten weeks, supplying the Astor House each day with 1000 for five days of a week, and on Saturday, 2,500.

Curious Statistics.—The American Institute of New York has published a statement respecting the consumption of animal food yearly in that city. The weight of beeves killed yearly is 34,400,000 pounds; sheep and lambs, 6,300,000 lbs.; hogs, 3,750,000 lbs.; calves, 990,000 lbs. Total, 45,449,000 pounds. The Republican says:

"Assuming the population of New York city to be 350,000, and that the consumption of animal food averages four ounces per day to each, the total consumption in a day amounts to 31,937,500 lbs., to which may be added the amount consumed by commerce in the coasting and foreign trade, and also by the population in the immediate vicinity of the city—13,472,500 lbs—fair estimate; it makes up and confirms the total before stated, of 45,449,000 lbs., which, at 3 cents per pound, amounts to $1,363,470."

Origin of Fruits.—Olives came from Greece; citrons from Media; cherries from the shores of Propontis; figs from Mesopotamia; chesnuts from Castanea, in Asia; peaches from Persia; oranges from Tyre; plums from Syria; artichokes from Sicily; apricots from Armenia; cabbages from Cyprus; melons from Persia.

Earliest known Potatoes.—Mr. Sterling, of Kenmure, Scotland, states that seedling potatoes were raised by Gerard, the English botanist, in 1590. This is twenty years earlier than they were introduced into Ireland by Sir Walter Raleigh.

Average Product of Wheat in England.—The Quarterly Review estimates this at 26 bushels per acre.

Operations of the Snag Boats on the Western Rivers.—The following facts in reference to the operations of the Snag Boats, employed in the removal of obstructions to navigation in the Western rivers, are derived from a report of the Topographical Department, by Col. Long, from the office of Improvement of Western waters.

The total number of obstructions removed in fifteen months, are as follows:

Snags, - - - - -	13,240
Roots, logs and stumps, -	16,498
Stumps and roots blasted, -	975
Impending trees removed, -	50,019
Total, - - - - -	80,732

The appropriation for this business for the year ending 30th June, 1844, was, - - - -	$102,802
Actually expended, - - -	91,362
Balance, - - - - -	11,440
Appropriation for present fiscal year, - - - - -	$180,000

It is estimated that this will be nearly expended. The estimate for the next fiscal year, is $240,000. This amount will probably be appropriated.

Cotton and Sugar.—The cotton crop of the United States, recently gathered, it is generally admitted in the South, will reach two million five hundred thousand bales.—The recent sugar crop of Louisiana will amount to about one hundred and eighty thousand hogsheads. At New Orleans, the

great mart for these staples, cotton ranges in price from 3¼ to 4¼ cents per pound.

The Cleveland Herald has the following article on sheep slaughtering. The ridding the country of such sheep should be a matter of general rejoicing:

"*Sheep Slaughtering.*—There is an unusual destruction of this peaceable and useful quadruped going on in Ohio, the present winter. There are several slaughtering establishments in the State, at some of which sheep are literally used up with the rapidity and skill of the Cincinnatians in pork-ology, as any one will learn who takes the trouble to witness operations at the slaughter-house of Col. N. M. Standart, in Brooklyn. Some 15,000 sheep have been killed at the establishment this winter, and about 5,000 more are to be slaughtered. So convenient and well arranged are the works, that 400 sheep are killed per day, every part of the animal being converted into use. The carcases are thrown into four large tubs or boilers and the tallow rendered from them by steam, and the process is so complete that after steaming about 40 hours, the pure tallow is drawn off into vats or coolers, the bones, flesh, &c., into large vats for hog-feed—the hams are nicely cut and saved, and pay the expenses of slaughtering—the pelts are dried for market—and the heads thrown into a pile, and the wool picked from them, when they are carted to the hog-field, and will be plowed in next spring to decompose and enrich the soil. About 300 hogs are fattening on the boiled flesh and offal of the establishment, and doing well.

The sheep have principally been purchased in Cuyahoga, Summit, Medina, Stark, Wayne, Knox and Holmes counties, generally of the common breeds, at prices ranging from 50 cents to $1 25 per head. It is to be hoped their places will be supplied with improved breeds, and they will be, no doubt, in many instances. Although the winter is considerably advanced, Col. S. informed us that 10,000 sheep could now be purchased in the counties named above, about 25 cents a head cheaper than the prices paid in the fall.

Tallow Manufacture.—A correspondent of the Springfield Republican, gives the following description of one of the manufactories of the West:

"There is one establishment at Lafayette, Indiana, which, from its novelty, must not be overlooked. It is a steam factory of tallow and lard. The whole process is this: A lot of cattle are purchased and butchered, the hides cured, and the carcases cut up and thrown into immense cauldrons, into which the steam from a large boiler is conducted, by which means the fat is rapidly extracted and drawn off; then the lean is dealt out to a lot of hogs, which, to a considerable extent, are fattened on this refuse of the carcases of the cattle. The hogs are served in the same way, and after the lard is extracted, the carcases are used for the same purposes as those of the cattle. This project, though an experiment, promises success.—1,000 hogs are expected to be kept in this way. Cattle in abundance, fattened on the prairies, may be had for five to ten dollars each."

Linseed Oil.—The Cincinnati Gazette states that there is five linseed oil mills in that city, and another one in the course of erection. They are capable of making, in the aggregate, 900 gallons of oil per day. The manufacture of linseed oil for export is a new business in the West. It is only a few years since it was obtained from the East for western consumption.—*Amer. Agricult.*

The Largest Power-Loom Shed in the World.—Messrs. Tinsworth & Son, cotton spinners of this town, have nearly completed and filled their most extraordinary and extensive power loom shed. The building covers one and three eights of an acre of ground, and will hold 1650 pair of looms, which will require 825 hands to superintend them, and 75 horse power to drive them.—The shafting connected with this monstrous shed is now finished; its length is 6500 feet. When the whole of the looms are in motion, they will require 28,000 feet of strapping.—There are 3,000 feet of gas piping, and 825 lights will be required. The roof contains 340 windows, or sky lights, and is supported by 325 pillars. When the whole of the looms are in motion, they will turn of fifty yards of cloth per minute!—*Preston Chronicle, (Eng.) Oct. 12th*, 1844.

Michigan.—The Legislature of Michigan convened at Detroit on the 6th inst. From the message of Gov. Barry, we derive the following particulars:

The militia of the State is 59,688 strong. Students in the University about 50; and in its branches about 150. Children in the State between 4 and 18 years of age, 80,475; number in common schools, 70,227. Prisoners in the State Prison, October 31st, 1844, 122, being an increase of 28 upon the previous year.

The amount of lead, made this year in the Upper Mississippi mines, exceeds that of any previous year—the value of the lead shipped from Galena, Du Buque, and Snake Hollow during the past season, is estimated at one million three hundred thousand dollars.

INDIANA FARMER & GARDENER.

Indianapolis, February 1, 1845.

Time of Publication.

We issue the first number one week in advance of its *date*. The second number will appear one week from the *date* of the first, about two weeks from the time at which this issues. The Indiana Farmer and Gardener will, after the second number, *punctually* appear every other Saturday.

Ohio Cultivator.

We have received the first No. of the Ohio Cultivator, published at Columbus (O.) and edited by M. B. Bateman, formerly editor of the Genessee Farmer. It is a semi-monthly, quarto form, very neatly got up, and destined to be ably edited. We should be free to recommend this paper to the farmers of Ohio and Indiana, but for one untoward circumstance—the editor avows that he is a *Bachelor*. Unless he can clearly show that this is not *his fault*, it should be regarded as a high social misdemeanor.—There may be better things in store, for he somewhat significantly informs the farmers of the State that, during the spring and summer, he intends to spend much of his time in visiting them. Farmers' daughters will, therefore, please take notice.

Protecting the Roots of Fruit Trees.

Cultivators are frequently urged in Horticultural papers to *cover the roots* of the Peach trees with heaps of snow, &c., that they may be retarded in the spring, and escape injury from late frosts upon their blossoms. This direction takes it for granted that the warmth of the ground starts the root, and the root starts the sap, and the sap wakes up the dormant branch. By covering the soil and keeping it back, the whole tree is supposed to be secured. But, unfortunately for this process, the motion of the sap is *first* in the BRANCHES, and last in the roots. Light and heat, exerted upon the branches for any considerable length of time, produce a high state of excitability; the sap begins to move toward the bud, its place is supplied by a portion lower down, and so on until the whole column of sap through the trunk is in motion, and last of all in the ROOT. But suppose warm, spring days, with a temperature of from 60° to 65°, have produced a vigorous motion of the sap in the branches and trunk, while the root, (thanks to snow and ice piled over it to keep it frozen,) is dormant, what will result? The sap already within the tree will be exhausted, the root will supply none, the light and heat still push on the development of bud and leaf, and the tree will exhaust itself and die. We not long since observed a remarkable confirmation of these reasonings. A gentleman in Huntington Co., Ia., reading these unskillful directions to cover the peach tree root, opened trenches about his trees, and filled them with snow, heaping bountifully also all about the trees. The next spring, long after his trees should have been at work, the snow held the root fast; the buds swelled and burst, lingered, shrivelled and died—and the *trees too*. This might have been prognosticated. There are partial methods of protecting the peach from too early development, but they all have respect to the protection of the *limbs*. If the branches can be covered during the random and prematurely hot days of spring, the tree will not suffer. High, and cool-aired aspects, north hill-sides, northern sides of houses, barns, &c., will answer this purpose. When it can be afforded, long boards may be set up upon the east and south side of choice trees, upon a frame slightly made and easily removed.

The reason why more damage has not been done by covering peach tree roots, than has occurred, is, that the ground has been superficially frozen, and many of the roots extending deeper and laterally beyond the congealed portions, have afforded a supply of sap after a motion had been imparted to it in the branches.

P. S. Just as the above left our hand, we received the OHIO CULTIVATOR, taken in the very act of sinning in this matter:

"*Care of Peach Trees in Winter.*—If there is a fall of snow, take a shovel and pile the snow around the tree, treading it well, two or three feet in height. Then cover it lightly with carpenters' shavings or straw, of light color, just so as to keep the sun from melting the snow as long time as possible. A few pieces of board will answer nearly as

well as shavings or straw. If there should not be sufficient snow, and the ground freezes to a considerable depth, it may answer the same purpose, if you place something of the kind on the south side of the roots of the tree. A little labor in this way may prevent the injury that in this climate so often results from a few days of untimely hot weather during the latter part of the winter; and as a reward you may be able to luxuriate on fine peaches next summer, while your less thoughtful neighbors are destitute."

A much shorter way of doing the same thing, would be to *saw off* the trunk near the ground, and lay the top carefully away in some sheltered place. We are persuaded that friend Bateman, upon a moment's reflection, will recant his heresy in this matter.

Ashes.—Very few manures are more certain in their operations than wood ashes, when applied on soils not wet. R. S. Ransom states, in the Central New York Farmer, that he applied both leached and unleached ashes on soil, which is "a deep, rich, dark colored earth," without any benefits being perceived. Can some of our readers give us a reason of the failure?—*N. Y. Farmer and Mechanic.*

The soil contained already the chemical ingredients which wood ashes supply. If *lime* be applied to a calcareous soil, it will do no good; there was no want of lime there before; if potash be added to a soil already abounding in it, no effect will be seen in the crops. Ashes contain lime and potash, (phosphate of lime and silicate of potash.) If a soil is naturally rich in these, the addition of ashes would be useless. Such cases show the true benefits of a *really* scientific knowledge of soils and manures. Every plant that grows takes out of the soil certain qualities. Wheat, among other things, extracts largely of its potash; Indian corn abstracts but little; Potatoes extract phosphate of magnesia, &c. A chemist would say, at once, apply that kind of manure which is rich in the particular property extracted by your wheat, corn or potatoes! What manure is that? Here again science must help. It analyzes manures—gives the farmer the choice among them. The soil being known, the properties required by different crops being known—the farmer applies that manure which contains what the soil lacks.

Hard Times---The Result.

What are called *hard times* produce very different effects on different individuals.—Some are made more industrious, and some more indolent; some grow frugal and careful, others careless and desperate; some never appear so honest as when brought to the *pinch*, but many men seem honest *until* they are brought to the trial, and then give way. Hard-times are gradually passing away. As a community, are we better or worse off than before? A few particulars may help us to form some judgment.

Fewer goods are bought at the store, and more are manufactured at home; spinning-wheels and looms have renewed their youth—and so have our mothers, who, after a long disuse, may now be seen working as merrily at them, as they used to do when they spun and wove their *wedding* furnishings—although they have not now any such rosy hope to quicken their aged fingers. Men have been obliged to rely more upon their own ingenuity—for want of money to pay the carpenter, the blacksmith, the shoemaker, &c. Old clothes, old tools, have been made to serve an additional campaign.

The leisure of dull times has been improved extensively in setting out orchards, and we hope this practice will be continued in busy times. Of this we shall speak in a future number. No one has, during the *pressure*, suffered for food, raiment, or shelter. Indeed, it is supposed that not a pound less of sugar, tea and coffee, has been used by the farmers of Indiana than hitherto. Probably the quantity has increased.

Debts have been gradually contracted or discharged. Men have seen the end of speculations to be sudden disaster—and (of all things on earth) speculation-farming has received its reward. Men contented with small gains—industrious, frugal, and prudent men, have suffered almost nothing.

But is it not to be feared, that under the influence of bankrupt-laws, (which, like all others, may be sadly abused,) and tacit repudiation, men have lost much *conscience* about *debt-paying?*

As there was little or no market for grains during a few years, farmers were discouraged; they cultivated with less *care;* felt lit-

tle interest in improved grains, or implements of husbandry. When nothing *pays*, one thing is as good as another. So, at least, thought a good many. This has made habits, before not too good, even more careless and thriftless.

The want of a market left large quantities of produce on hand—and induced, if possible, more wasteful habits of *using* than prevailed before. A stock of hay is left open, and cattle help themselves at their own discretion. Corn is squandered—is fed out because it is *easier* to furnish than something which would be better for the stock; or it is fed in too great quantities wastefully. Such has been the abundance of grain and grass in the West, that economy in the use of it, for man or beast, is hardly regarded as respectable.

The time is not far ahead when these things will be *felt;* the children who are reared with *shiftless* habits, will become of age just about the time that the necessity of *economy* and *care* in farming will be felt, and will have all their habits to *un-learn* or else to suffer for it all their life. The waste of a hundred bushels of corn is not much—but the *habit* of wasting is the evil.

We anticipate a great change in the farming operations of this region on the completion of the *rail-road* to Indianapolis; but of this we mean to speak in a separate article.

Gypsum.—The quantity of sulphate of lime applied to soils in this country, is very great, and generally with marked success, but sometimes otherwise. It is commonly supposed to be influenced by repeated applications, by dry weather, and by exhaustion of the organic substances in the soil. It is time that practice and science should have ascertained the circumstances under which it should be applied.—*N. Y. Farmer and Mechanic.*

"Time and practice" *have* ascertained the circumstances under which it should be applied. As a reason why, after repeated applications, it no longer benefits, Prof. Liebig says, "when we increase the crop of hay in a meadow by means of gypsum, we remove a greater quantity of potash with the hay than can, under ordinary circumstances, be restored. Hence it happens that, after the lapse of several years, the crops of grass on lands manured with gypsum, diminish, owing to the deficiency of potash." In such a case, if spent ashes were employed either in connection or alternately with gypsum—potash would be re-supplied from the ashes.

Acclimating a Plow.

The other day we were riding past a large farm, and were much gratified at a device of the owner for the preservation of his tools. A good plow, apparently new in the spring, had been left at one corner of the field, standing in the furrow, just where, four months before, the boy finished his *stint*. Probably the timber needed *seasoning*—it was certainly getting it. Perhaps it was an *Eastern* concern, and was left out for acclimation. May-be the farmer left it there to save time, in the hurry of the spring work, in dragging it from the shed. Perhaps he covered the share to keep it from the elements, and save it from rusting. Or, again, perhaps he is troubled with neighbors that *borrow*, and left it where it would be convenient for them. He might, at least, have built a little shed over it. Can any one tell what a farmer leaves a plow out a whole season for? It is barely possible that he was an *Irishman*, and had *planted* for a spring crop of plows.

After we got asleep that night, we dreamed a dream. We went into that man's barn; boards were kicked off, partitions were half broken down, racks broken, floor a foot deep with manure, hay trampled under foot and wasted, grain squandered. The wagon had not been hauled under the shed, tho' it was raining. The harness was scattered about—hames in one place, the britching in another—the lines were used for *halters*. We went to the house. A shed stood hard by, in which a family wagon was kept for wife and daughters to go to town in. The hens had appropriated it as a roost, and however plain it was *once*, it was ornamented *now*, inside and out. (Here, by the way, let it be remembered that hen-dung is the *best* manure for melons, squashes, cucumbers, &c.) I peeped into the smoke-house, but of all 'fixings' that ever I saw! A Chinese Museum is nothing to it. Onions, soap-

grease, squashes, hogs bristles, soap, old iron, kettles, a broken spinning-wheel, a churn, a grind-stone, bacon-hams, washing-tubs, a barrel of salt, bones with the meat half cut off, scraps of leather, dirty bags, a chest of Indian meal, old boots, smoked sausages, the ashes and brands that remained since the last 'smoke,' stumps of brooms, half a barrel of rotten apples, together with rats, bacon bugs, earwigs, sowbugs, and other vermin which collect in damp dirt.—We started for the house; the window near the door had twelve lights—two of wood, two of hats, four of paper, one of a bunch of rags, one of a pillow, and the *rest* of glass. Under it stood several cooking pots, and several that were *not* for cooking. As we were meditating whether to enter, such a squall arose from a quarreling man and woman, that we awoke—and lo! it was a dream. So that the man who left his plow out all the season, may live in the neatest house in the county, for all that we know; only, was it not strange that we should have dreamed all this from just seeing a plow left out in the furrow!

Garden Work.

If the soil be thrown up during the open weather into ridges, an immense number of insects will be unboroughed and destroyed; stiff, clayey soils will be rendered more crumbling and mellow by exposure to frost. If advantage is taken of the weather to haul manure, let it be stacked up, and a little earth thrown over it, else the volatile and most valuable portions will escape. Ashes may be spread over the garden; a small portion of refuse salt will benefit the ground, and may be sown now. Clear the ground of all vines, stalks, haulm. If you have flowering bulbs, cover slightly with coarse manure—they will not be so much tried by changes of temperature and moisture, and will flower stronger for it. These bright dry days afford a fine time for going to the woods and cutting poles for your beans, stakes for your trees and dahlia's, brush for peas, &c. While you are about it, collect moss from old logs, and put it away in the barn or shed to cover the ground in summer where roses and shrubs have been newly set out, and require to be kept moist. If not done before, put two or three forks full of coarse green manure about tender shrubs—Noisette and China roses. Freezing and thawing at the crown of the roots, destroys them oftener than any thing else.

On mild days when the earth is open, sow lettuce seed in a warm corner, beat it gently with the back of the shovel, and cover it slightly with fine earth or old crumbling manure. You will have lettuce ten days earlier for your trouble. Pepper-grass and radishes may be sowed in like manner.

☞ Let alone the knife and saw. Your vines and trees will not be benefitted by any pruning at this season.

Parlor Flowers.

Hyacinths, Narcissus, &c., in pots and glasses will be in bloom now. Water freely such as are in pots, while in blossom. The flower stalks will be apt to shoot up taller and weaker than in the garden, and will require rods to support them. Let the rod be thrust down about *two inches* from the centre of the flower, and attach the flower stem to it by one or two ligaments. Flowers in small stove-rooms can be kept in health with extreme difficulty. The heat forces their growth, or injures the leaves. They should be washed off once a week, (either on a mild day out of doors, or in a warm room within, if the weather be severe,) as the dust settles upon the leaf, and stops up the stomata (mouths) by which the leaf perspires and breathes. If green *aphides* infest them, put a pan of coals beneath the stand, and throw on a half-handful of coarse tobacco. In half an hour every insect will tumble off. Let such as lie on the surface of the earth be removed or crushed, as they will else revive. Plants should have *fresh air* every day.

The Weather.

Such a winter was never before known in the West; not even by the standing authority in such cases—'the oldest inhabitants.' We inquired of one old gentleman, who replied that he had lived in the West "since Cincinnati was a contemptible village," and never knew so mild a winter. The weather has been settled, dry, mild, uniform, and for the most part brilliant. Wells are giving

out—the roads have been good until this time—the ground has not been frozen ten days at a time—birds have neglected to go to the South—grass and clover sprout on warm lands of a southern exposure—wheat is uninjured—there has never been enough warm days to injure the fruit buds. We see by the papers that the season has been analogous to this through the eastern and northern States. The New York Tribune says:

"A most remarkable fact is, that on Janury 6th, the steamer United States arrived at Cleveland from Detroit, on her passage to Buffalo. The Canal is also open at Cleveland. At New Haven they have had violets blooming in the open air, within the past week, if we can credit the statement we see to that effect. On the whole a more charming season cannot be imagined, and we can scarcely believe it is winter, when we look into the Park; there is no snow, or ice, and blue noses are out of season."

Corn, Wheat, Oats.

There are few counties in Indiana which are regarded as being under better husbandry than Union and Wayne. There are better tracts of lands; but a large proportion of these counties is settled with Friend Quakers, and among them, we have been led to expect whatever is excellent in the house, in the barn, or in the field. We were not a little surprised, therefore, at these *averages* of staple crops—corn, 30 bushels—wheat, 12!! and hay a ton and a half. We fear that the delusive doctrine of a 'virgin soil,' a 'western soil,' 'inexhaustible fertility,' &c., has found favor even with Friend Quakers, who are not apt to be imposed upon by the fictitious and fanciful, instead of the real and substantial.

There is no State in the Union that requires, and will justify *thorough* cultivation more than Indiana—fertile as she confessedly is. Severe cropping of exhausting grains, without rotation, and with a contempt for manure, will, in twenty or forty years, leave our soil in a worse condition than are the old tobacco lands of Virginia.

The north of Indiana is *the* wheat region; and there, with careless cultivation, the average crop is about 20 bushels. Ten and twenty acre patches that are thoroughly tilled are easily run up to 40 bushels. Now Wayne may not be as favorable to wheat as St. Joseph or Laporte, but 12 *bushels* is not one *half* of what she should produce to the acre.

But we will not compare these crops with western crops. Let us go from our climate and soil to that of Massachusetts, certainly inferior for agricultural purposes. The careful estimates of Mr. Colman, for Berkshire Co., are before us. We will give some of them:

SHEFFIELD, (town.) Corn, 30 bushels: 60, 80, 93, and 110 have been obtained. Oats, 35—50 bushels the average per acre: 80 and 84 have been obtained. Wheat without manure, 18 and 20 bushels: 29, 34, 36 and 40 have been obtained. Hay two tons per acre.

RICHMOND. Corn, 30, 32, 40, 54, 60 bushels. Wheat, 10, 11½, 12, 15, 16½, 17½ bushels. Oats, 20, 25, 30, 32, 35, 40, 58 bushels.

ALFORD. Average, corn, 40; wheat 15; oats 35; 80 have been cut to the acre. Hay 2½ and 3 tons.

LENNOX. Corn, 40; wheat 20; oats 40; hay 1½. In two cases corn 120 bushels.

WEST STOCKBRIDGE. Corn 40; wheat 25 and 30; oats 50.

CHESHIRE. Corn 40, wheat 20, oats 40.

These will give a fair specimen of the crops of corn, wheat, and oats in Berkshire Co., Mass. Massachusetts is not a wheat growing State. Her Legislature to encourage its production offered liberal bounties. The crop there is the result of care; but it averages more to the acre than in Wayne and Union.

But what shall we say of corn? The West has always claimed to be *the* corn region of the world. She is naturally qualified to be. But a poor system of cultivation makes our crops (except on bottom lands) *less* than the average eastern crops. In this county, (Marion,) do our bottom lands *average* 75 bushels?—our second bottom lands 50?—and our uplands more than 45? *There is too much ground cultivated, and it is cultivated too little.* Fifteen acres *well* prepared would give as many bushels as 30 carelessly tended. We insert a table, for which we are indebted to the Albany Cultivator, showing large crops which have been raised.

No. of Acres.	Product per acre.	Name and place of cultivator.	Year.
1	136	R. H. Rose, Silver Lake, Pa.	1820
1	118	John Stevens, Hoboken, N. J.	1820
1	172	J. & M. Pratt, Madison, N. Y.	1822
4	170	" " " "	1824
1	132	Samuel Chidsey, Cayuga, N. Y.	1819
8	112	Earl Stimson, Saratoga, N. Y.	1823
5	129	Wm. M'Clure, Allegheny co., Pa.	1823
5	136	Joseph Evans, Washington co., Pa.	1823
1	174	B. Bartlett, Eaton, Madison co., N. Y.	1823
1	116	T. & H. Little, Newburyport, Mass.	1822
1	115	" " " "	1823
1	142	Mr. Wilmarth, Taunton, Mass.	1825
5	108	Charles Bugbee, Palmer, Mass.	1831
1	140	Benj. Butler, Chenango, N. Y.	1831
1	103	"Old Farmer," Rhode Island.	1833
40	140	Asabel Renick, Pickaway co., Ohio.	1835
1–12	100	S. Lathrop, W. Springfield, Mass.	1835
1	108	R. H. Sheldon, Cayuga co., N. Y.	1838
1	110	E. Humphreys, Caledonia, N. Y.	1837
1	131	R. Lamprey, Moultonborough, N. H.	1839
1	116	Mr. Brown, Strafford, N. H.	1839
1	130	P. P. Pilsbury, Tuftonborough, N. H.	1839
1	144	J. F. Osborne, Cayuga co., N. Y.	1841
1	121	J. Sherman, " "	1841
1	112	" " "	1841
1	120	Mr. Ellsworth, Conn.	1840
1	158	G. W. Williams, Bourbon co., Ky.	1840
1	120	W. Ingalls, Oswego co., N. Y.	1839
7	....	J. Myers, Canton, Ohio,	1840
1	154	W. Ingalls, Oswego co., N. Y.	1840
2	116	B. Bradley, Bloomfield, N. Y.	1841
1	122	Samuel Phelps, Cayuga, N. Y.	1842
1	113	Wm. Ingell, Oswego, N. Y.	1842
1	132	W. Wilcox, Saratoga, N. Y.	1842

To the above we add from memory, in part, Joel Wal-

ker, Belvidere, Ill., 170 bushels —Mr. Wadsworth, Durham, *Connecticut*, 151 bushels. The committee report. ing the last case, say: "this eclipses even the far-famed corn regions of the West. With facts like these before their eyes, our young farmers, we think, will hardly feel disposed to quit the healthful home of their sires, to seek a fortune among the Wolverines and Hoosiers." We think so too—if *every* farm in Ct. could raise 150 bushels to the acre; and if only 40 bushels *could* be raised in Indiana. But the same cultivation in Wayne county, which produced 150 bushels in Ct., would give more than 200 bushels.

Fire-Blight and Winter Killing.

These are two entirely different processes. We are not able to tell whether Mr. Bartlett, whose article we insert in another column, regards *Fire-Blight* as caused *during* the winter, or not. The first case which he cites seems to be one of simple *winter killing*—no rigorous cold until 10th *January*—then sudden and severe. Certainly, in New England, the tree was in a state of rest by that time, and wholly out of leaf. The *Fire-Blight*, (of the middle and western States,) is a disease of the circulating system, induced by a freezing of the sap while *the tree is in a growing and excitable state*. It always *must* occur before the leaves are shed in the autumn.

Winter killing is of two kinds—resulting from severe cold, and from untimely heat. The loss of tender shrubs, roses, &c., at least, before they are fully established, and of half hardy fruit trees, is occasioned by the winter sun shining warmly upon them while frozen, and suddenly thawing them. The point of death is usually near the surface of the ground, where the under-ground bark and upper bark come together. Whole orchards are destroyed in this way; and if examined, the bark may be found *sprung off* from the wood. This may occur at any time during the winter.

Another form of *winter killing* is that produced by excessive cold. The first case of Mr. Bartlett's is a case in point. Here the most manifest violence is done to the whole fabric. In this region, trees have been split so that both hands might be put through the seam. They usually close again if the day grows warm.

Mr. Bartlett supposes the splitting to arise from the expansion of the freezing fluids of the tree. This does not seem to us the true reason. We are in doubt whether the winter-stored sap exists in a state to be so effected. If the expansion of congelation *did* produce the effect, it should have been more *general*, for there are fluids in every part of the trunk—all congeal or expand—and the bursting of the trunk in one place would not relieve the contiguous portions. We should expect, if this were the cause, that the tree would *explode*, rather than split. Capt. Bach, when wintering near Great Slave Lake, about 63° north latitude, experienced a cold of 70° below zero. Nor could any fire raise it *in the house* more than 12° above zero. Mathematical instrument cases, and boxes of seasoned fir, split in pieces by the cold. Could it have been the sap in *seasoned fir wood* which split them by its expansion in congealing?

We quote a paragraph from Loudon—

"The history of frosts furnishes very extraordinary facts. The trees are often scorched and burnt up, as with the most excessive heat, in consequence of the separation of water from the air, which is therefore very drying. In the great frost in 1683, the trunks of oak, ash, walnut, and other trees, were miserably split and cleft, so that they might be seen through, and the cracks often attended with dreadful noises like the explosion of fire-arms."

We don't exactly know whether to take the first part as Loudon's explanation, of the facts in the second.

There can be no doubt that the nature of the summer's growth, very much determines the power of a tree to resist the severity of winter. When there is but an imperfect ripening in a cold and backward season, the tissues formed will be feeble, and the juices stored in them thin. Now the power to resist cold, among other things, is in proportion to the viscidity of the fluids in a plant.

It is highly desirable that the chemical researches which have revolutionized the art of cultivation, should be pushed into the *morbid anatomy* of vegetation. A close, exact analysis of all the substances in an injured condition, will save a vast deal of bootless ingenuity and fanciful speculation.

Indiana Legislature.

The Legislature adjourned on Monday, Jan. 13, after a session of six weeks. The law cutting down the pay of members one-half, for every day after six weeks, bids fair to *fix* the length of a session at six weeks. About four hundred bills and joint resolutions were passed during the session. The most of them were local, and not generally important. A few bills were of public interest—one to oblige voters to vote in their own townships; a bill incorporating a company to build a Rail-road between Crawfordsville and Lafayette; another giving the Madison and Indianapolis Rail-road Company an alteration of the powers hitherto granted to them, and some privileges, conditioned upon finishing the road in *three years*. If these two roads are completed, it will not be long before 'iron ribbons' will be found long enough to tie them together, making a road from the Ohio river to the Wabash. The distance between Indianapolis and Crawfordsville is 45 miles.

The Revenue Bill provides for a poll tax of 50 cts., and a levy of 20 cts. on the hundred dollars; five cents of which are for ordinary expenses of government, and 15 cents to extinguish the domestic debt.

A law was passed providing for the enumeration of the white male inhabitants of the State, preparatory to the apportionment of representatives at the next session of the Legislature.

The Legislature deserves great credit for the establishment of Public Institutes for the unfortunate—a Deaf and Dumb Asylum had been already formed; a tax was laid of two cents on each one hundred dollars for the purposes of an Asylum for the Insane; three Commissioners were appointed to purchase a farm for the same. A tax of two mills on each hundred dollars was laid to defray the expenses of educating the Blind. As it takes a longer time to establish an Institution for the Blind than either of the others, and as the number of pupils would be comparatively limited, it was thought politic to send them to the Kentucky Institute for the Blind, at Louisville. That State has generously endowed an Institution, and now offers to take charge of the Blind in Indiana, on the same terms as for her own.

Plain and Pleasant Talk.

Do not be tempted by fine weather to haul out manure—it will be half wasted by lying in small heaps over the field; to spread it will be worse yet; manure should lie in a stack, as little exposed to the weather as possible. If such a thing is ever done by a Western Farmer as to *make* manure out of swamp mud, &c. &c., now is the time to collect the materials.

Look to your fences; see that they are in complete order and leave nothing of this to consume your time in the Spring when you will need all your force for other work.—It is well to maul all the rails you will need for the year. The timber will last longer cut now. Do not leave rails or sticks of timber lying where you cleave them, on the damp ground, they will decay more in six months there, than in eighteen when properly cared for. Put two rails down and lay the rest across them so as to have a circulation of air beneath. If you have five or ten acres of *deadening* which you mean to clear up this Spring and put to corn, you may as well roll the logs now. There has been as fine drying and burning weather this winter as we ever knew. Every good farmer should study through the winter to make his spring work as light as possible. Whatever can be done *now* do not fail to do it; you will have enough to do when spring opens; and perhaps the season may be one which will crowd your work into a week or two. If you have young fruit trees, or a little home-nursery look out for *rabbits*. They usually depredate just after a light fall of snow.

Overhaul all your plows, carts, shovels, hoes, &c., and put every thing in complete readiness.

While you are moving about and repairing holes in the fence, putting on a rail here, a stake yonder, a rider in another place, you may enquire of yourself whether your *character* is not in some need of repairs? Perhaps you are very careless and extravagant,—the fence needs rails there; perhaps you are lazy—in that case the fence corners may be said to be full of brambles and weeds, and must be cleared out; perhaps you are a violent, passionate man—you need a stake and rider on that spot. And, lastly, perhaps you

are not *temperate*, if so, your fence is all going down and will soon have gaps enough to let in all the hogs of indolence, vice, and crime: and they make a large drove and fatten fast. Now is a good time to plan how to get out of debt. Dont be ashamed to *save* in *little things*, nor to earn small gains: "*Many a mickle makes a muckle.*" But set it down, to begin with, that no saving is made by cheating yourself out of a good newspaper. No man reads a good paper a year, without *saving* by it. Suppose you put in your wheat a little better for something you see written by a good farmer and get five bushels more to the acre. One acre pays for a year's paper. One receipt, a hint which betters any crop, pays for the paper fourfold. Intelligent boys work better, plan better, earn and save better; and reading a good paper makes them intelligent. Besides, suppose you took our paper a year, and found nothing new during all that time (an incredible supposition!) yet every two weeks we come to *jog your memory* about things which you may forget, but ought not to forget.—We shall step in and ask whether that little store bill is paid? Whether that loan drawing a fatal *ten per cent.* (poison! poison! deadly poison!!) is being melted down? whether the children are going to school? whether the tools are all right? the fences snug? whether economy, and industry, and sound morals, (the best crop one can put in,) are flourishing? We shall look at your orchard —peep over into your garden, pry into the dairy—nay, into the cup-board and bureau, and even into your pocket. Now, if you are a man willing to learn, we shall give you hints enough in a year to pay ten times over for your Indiana Farmer and Gardener.—Are you willing to *prove* this matter? Take the Farmer and Gardener for a year, and if at the end of it, you can conscientiously say, "Well, here is the last number; 400 pages I've had for *fifty cents;* I've not had 50 cents worth of reading out of it"—if you can say this, we will stop the paper, and refund the money. So friends, fare you well for two weeks.

The true way of enriching ourselves is by cutting off our wants.

Grain vs. Temperance.

New Distillery.—The new distillery of our enterprizing fellow-citizen, C. G. W. Comegys, has commenced operations. It is calculated to mash from four to five hundred bushels daily, making some forty or fifty barrels of whiskey per day, and feeding some three to four thousand hogs. A few more such concerns in this neighborhood will raise the price of grain. We are now consuming daily for distilling purposes alone, from ten to twelve hundred bushels of corn; making the consumption per annum equal to three hundred thousand bushels. Our flouring mills, when all get into operation, will consume more than that amount of wheat in the manufacture of flour. Lawrenceburgh is destined to be the greatest grain market in the west.—*Lawrenceburgh (Ia.) Beacon.*

We now ask the reader to peruse the following account of a Temperance meeting in the Ohio Penitentiary, extracted from the Ohio State Journal, and weigh especially the closing part:

"Some thirty or forty members of the Legislature and others were present to hear the address and witness its effects. The convicts to the number of some 450 were seated, and after appropriate opening exercises, Mr. Carey commenced his address.—He had not proceeded far, before nearly every eye was riveted on him. Chords in the breasts of the hardened men were touched that had not vibrated for years.

They were busy with other days, and as the speaker eloquently portrayed the fearful progress of the occasional and habitual drinker, commencing his career and sowing the seeds of degradation, shame and misery in the very spring-time of life, and going on step by step in his downward career, until the dungeon, the scaffold or the grave closes the scene, the fountains of feeling and sensibility were broken up, and scalding tears bathed the cheeks of the wretched convicts. The kind hand that lifted the veil and showed them the melancholy cause of misery and crime, pointed them to the remedy and bade hope once more live in their hearts.—And as they looked forward to the future, brighter scenes dawned on their visions, and stern resolves were formed to shun the abyss of wo; when, having served out their painful probation, they should again enter the world.

The scene affected deeply the spectators present, and the tears of the legislator mingled with those of the convict, until there were few dry eyes in the whole assemblage. The Warden, unused to such a spectacle, could not suppress his emotions, and wiped away without attempt at concealment, the

moisture from his eyes. When the Speaker called on those of the convicts who could trace the commission of crime that brought them there, to the use of *intoxicating drinks*, to raise the right hand, *more than four-fifths of them*, as we learn, *immediately stretched forth their hands*, struggling at the same time to suppress the emotions that convulsed their frames."

It is too late in the day to have any reserve in this matter. The manufacturing of whiskey is bad for a community in every point of view—bad for the owners—bad for hands employed—bad for the hangers on—bad for the town and neighborhood, and bad for every part of the community into which the stuff is sent. The farmers will get a better price for grain! Well, where does the price come from? From novitiates and veterans of vice, poverty and crime. Counties will be taxed to support some of them, the State to support others; and the community will lose by crime and mendicancy, four times as much as farmers gain by 'better prices' for corn.

The prosperity of distilleries is small matter of congratulation to sober men. When competion or desire of gain drive professed christians, and ardent temperance men to *distilling*, we may regard ourselves as on the downhill side of morals.

"For the love of money is the root of all evil; which, while some coveted after, *they have erred from the faith, and pierced themselves through with many sorrows.*" This is all true, and will be found out, when the finding it out will be neither pleasant to the memory or to the meditation.

Our Arrangements.

We shall have, we hope for the third number of the Indiana Farmer and Gardener, paper of a larger size and superior quality to that which we now use. We were obliged to print this number, and shall be the next, upon such as could be obtained here. We shall leave nothing undone to make our paper in mechanical execution equal to the best Journals in our land. We are making provisions for suitable pictorial illustrations which will appear in due time. We mean however to put our most attractive pictures in *type*.

N. B. As soon as our arrangements with correspondents can be completed we shall present, from original sources, prices current in full at the points mentioned and of the articles contained in the table.

TABLE OF PRICES CURRENT

At Cincinnati, Louisville, Lawrenceburgh, Madison, Indianapolis, Lafayette, Ft. Wayne, &c.

	Indianapolis.	Cincinnati.	Louisville.	Madison.	Lawrenceburgh.	Lafayette.	Ft. Wayne.	Michigan City.
GRAIN.								
Corn, per bushel,	20a25 cts.	30a35	25a30				40 cts.	
Wheat per "	50 cts.	75 cts.	75 cts.				60a68	
Oats per "	18a20	23a28	20a25				30a33	
FLOUR, per bbl.,	3.25	3,68a3,70	3,80a4,00				3,50	
CORN MEAL, p. bush.	25 cts.						50	
PORK, &c.								
Clear, per bbl.	none	10,00	9,00a10,00					
Mess,	none	9,00	9,00a9.25				9.00	
Prime,	none	7,00a7,25	7,00a7,50					
Hams, per lb.	5 cts.	5 cts.	5¼a5½					
Hog round,	2½ ct.	3⅜						
Lard,	5a6	5¼a6	prime 6				5a6	
CATTLE—								
On foot,		2,50a3,00	2,56a3,75					
Beef in barrels,								
FRUIT—								
Apples, dried,	87	75a80	75a87				1,00	
" green,	37	62a75	62a75				50,	
Peaches, dried,	1,12½	1,12½	1,00a1,12½				1,50	
SEEDS—								
Clover,		3,87a4,00	4.12a4,25					
Timothy,			1,87a2,25					
Hemp,		50 cts.	50 cts.					
Flax,	68 cts.	1,00a1,06	95a1.00					
SALT—								
Kenhawa,								
Onondaga,							2,50	
FEATHERS, per lb,	25 cts,	25	25				25	
TALLOW, per lb,	4a5	4a6	4a6					
HIDES,							7a8	
BEESWAX,	25	25	25				25	
BUTTER,	10a12	15a20	12a20				10a12½	
EGGS,	5a6	12a14					8 cts.	
COFFEE,								
SUGAR,								